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PATENT APPLICATION

ATTORNEY DOCKET NO. 10004872-1

IN THE
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Michelle R. Lehmeier et al.

Confirmation No.: 6930

Application No.: 09/803,441

Examiner: James A. Thompson

Filing Date: 03-09-2001

Group Art Unit: 2624

Title: Method and Apparatus for Matching Color Image Data with a Corresponding Color in a Defined Color Space

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TRANSMITTAL OF APPEAL BRIEF

Transmitted herewith is the Appeal Brief in this application with respect to the Notice of Appeal filed on October 17, 2005.

The fee for filing this Appeal Brief is (37 CFR 1.17(c)) \$500.00.

(complete (a) or (b) as applicable)

The proceedings herein are for a patent application and the provisions of 37 CFR 1.136(a) apply.

☐ (a) Applicant petitions for an extension of time under 37 CFR 1.136 (fees: 37 CFR 1.17(a)-(d)) for the total number of months checked below:

☐ 1st Month
\$120

☐ 2nd Month
\$450

☐ 3rd Month
\$1020

☐ 4th Month
\$1590

☐ The extension fee has already been filed in this application.

☒ (b) Applicant believes that no extension of time is required. However, this conditional petition is being made to provide for the possibility that applicant has inadvertently overlooked the need for a petition and fee for extension of time.

Please charge to Deposit Account 08-2025 the sum of \$ 500. At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

Michelle R. Lehmeier et al.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Michelle R. Lehmeier et al.	§	Art Unit:	2624
Serial No.:	09/803,441	§		
Filed:	March 9, 2001	§	Examiner:	James A. Thompson
For:	Method and Apparatus for Matching Color Image Data with a Corresponding Color in a Defined Color Space	§	Atty. Dkt. No.:	10004872-1 (HPC.0172US)

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Alexandria, VA 22313-1450

APPEAL BRIEF PURSUANT TO 37 C.F.R § 41.37

Sir:

The final rejection of claims 1, 3-14, 18-24, and 26-32 is hereby appealed.

I. REAL PARTY IN INTEREST

The real party in interest is the Hewlett-Packard Development Company, L.P.

II. RELATED APPEALS AND INTERFERENCES

None.

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Ginger Yount
Ginger Yount

III. STATUS OF THE CLAIMS

Claims 1, 3-14, 18-24, and 26-32 have been finally rejected and are the subject of this appeal.

Claims 2, 15-17, and 25 have been cancelled.

IV. STATUS OF AMENDMENTS

An Amendment after final was submitted by Appellant on August 15, 2005. In an Advisory Action dated September 13, 2005, the Examiner indicated that the proposed Amendment will not be entered for purposes of appeal.

The undersigned has discussed the issue of entry of the Amendment after final with both Examiner Thompson and with the primary examiner, Thomas Lee. Examiner Lee indicated that, since the Amendment merely cancelled a claim (claim 25) and amends a claim (claim 26) from dependent form to independent form without affecting its scope and the dependency of dependent claims, the Amendment should be entered. However, Examiner Lee stated that the undersigned should work with Examiner Thompson.

In a telephonic conference with Examiner Thompson, Examiner Thompson indicated that he will reconsider entry of the Amendment after final upon filing of a written request. This constitutes the written request to enter the Amendment after final submitted August 15, 2005, for purposes of appeal. Entry is appropriate since issues are removed for purposes of appeal (claim 25 has been cancelled), and the amendment of claim 26 from dependent form to independent form does not change its scope.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

Independent claim 1 recites a method for matching a color with a corresponding color in a defined color space, comprising:

scanning an object having the color to be matched to produce a color image data signal representative of said object (Fig. 2:30; Specification, p. 9, lines 9-12; p. 16, lines 20-24);

mapping said color image data signal to the defined color space to ascertain the corresponding color (Fig. 2:38; Specification, p. 9, lines 17-21; p. 17, line 27-p. 18, line 3);

determining an identity of the corresponding color (Specification, p. 19, line 18-p. 20, line 2); and

sending the identity of the corresponding color over a network to a website (Fig. 2:40; Specification, p. 9, lines 21-25; p. 20, lines 2-5; p. 22, lines 20-23; p. 23, lines 26-30).

Independent claim 14 recites a system for matching a color with a corresponding color in a defined color space, comprising:

scanning apparatus (Fig. 1:14), said scanning apparatus to scan an object having the color to be matched, said scanner apparatus to produce a color image data signal representative of said object (Fig. 2:30; Specification, p. 9, lines 9-12; p. 16, lines 20-24); and

a computer (Fig. 1:20) operatively associated with said scanner apparatus, said computer to:

in response to user selection, select a color region of the color image data signal representative of said object (Fig. 2:36; Specification, p. 9, lines 16-17; p. 16, line 28-p. 17, line 26);

determine a dominant color from a plurality of colors in the selected color region (Specification, p. 20, lines 15-28);

map a portion of said color image data signal corresponding to the dominant color to the defined color space to ascertain an identity of the corresponding color (Fig. 2:38; Specification, p. 9, lines 17-21; p. 17, line 27-p. 18, line 3); and

present the identity of the corresponding color to a user (Fig. 2:40; Specification, p. 9, lines 21-25; p. 20, lines 2-5; p. 22, lines 20-23; p. 23, lines 26-30).

Independent claim 26 recites an article comprising a storage device containing program code that when executed cause a system to:

receive color image data representing an object scanned by a scanner, wherein the object has a texture (Specification, p. 9, lines 9-16; p. 16, lines 24-27);

process the color image data to remove influence of the texture, the processing producing a de-texturized color image data (Specification, p. 21, line 19-p. 22, line 3); and

map the de-texturized color image data to determine a corresponding color in a defined color space (Fig. 2:38; Specification, p. 9, lines 17-21; p. 17, line 27-p. 18, line 3),

wherein the program code when executed cause the system to send an identity of the corresponding color over a network to a website (Fig. 2:40; Specification, p. 9, lines 21-25; p. 20, lines 2-5; p. 22, lines 20-23; p. 23, lines 26-30).

Independent claim 28 recites a system comprising:

a storage device (Fig. 3:42) to store information representing a defined color space (Specification, p. 18, line 1-p. 19, line 5); and

a processor (Fig. 1:20) to:

receive color image data representing an object scanned by a scanner (Specification, p. 9, lines 9-16; p. 16, lines 24-27);

map the color image data to a corresponding color in the defined color space (Fig. 2:38; Specification, p. 9, lines 17-21; p. 17, line 27-p. 18, line 3);

determine an identity of the corresponding color (Specification, p. 19, line 18-p. 20, line 2); and

communicate the identity of the corresponding color to a website (Fig. 2:40; Specification, p. 9, lines 21-25; p. 20, lines 2-5; p. 22, lines 20-23; p. 23, lines 26-30).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. Claims 1, 3-5, 8, 10, 11, And 21 Were Rejected Under 35 U.S.C. § 103 Over U.S. Patent No. 5,598,186 (Edgar) In View Of U.S. Patent No. 5,751,829 (Ringland) And U.S. Patent No. 6,344,853 (Knight).**
- B. Claims 28 And 29 Were Rejected Under § 103 Over Edgar In View Of Knight.**
- C. Claims 14, 19, And 20 Were Rejected Under § 103 Over Edgar In View Of Ringland.**
- D. Claims 26 And 27 Were Rejected Under § 103 Over Edgar In View Of U.S. Patent No. 5,465,307 (Azumaya) And Knight.**
- E. Claims 6, 7, 9, 12, And 13 Were Rejected Under § 103 Over Edgar In View Of Ringland, Knight, And U.S. Patent No. 5,506,946 (Bar).**
- F. Claim 18 Was Rejected Under § 103 Over Edgar In View Of Ringland And Bar.**
- G. Claims 22 And 23 Were Rejected Under § 103 Over Edgar In View Of Ringland, Knight, Bar, And U.S. Patent No. 5,594,807 (Liu).**
- H. Claim 24 Was Rejected Under § 103 Over Edgar In View Of Ringland And Liu.**
- I. Claim 30 Was Rejected Under § 103 Over Edgar In View Of Knight And Ringland.**
- J. Claims 31 And 32 Were Rejected Under § 103 Over Edgar In View Of Knight, Ringland, And Liu.**

VII. ARGUMENT

The claims do not stand or fall together. Instead, Appellant presents separate arguments for various independent and dependent claims. Each of these arguments is separately argued below and presented with separate headings and sub-headings as required by 37 C.F.R. § 41.37(c)(1)(vii).

A. Claims 1, 3-5, 8, 10, 11, And 21 Were Rejected Under 35 U.S.C. § 103 Over U.S. Patent No. 5,598,186 (Edgar) In View Of U.S. Patent No. 5,751,829 (Ringland) And U.S. Patent No. 6,344,853 (Knight).

1. Claims 1, 3-5, 8, 10, 11, and 21.

It is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 1 over Edgar, Ringland, and Knight, for at least the following reasons: (1) no motivation or suggestion existed to combine the teachings of the references, and (2) the hypothetical combination of the references does not teach or suggest *all* elements of the claim. See M.P.E.P. § 2143 (8th ed., Rev. 3), at 2100-135.

Claim 1 recites a method that includes mapping a color image data signal to a defined color space to ascertain a corresponding color, determining an identity of the corresponding color; and sending the identity of the corresponding color over a network to a website.

The Examiner conceded that Edgar and Ringland do not disclose sending an identity of the corresponding color over a network to a website (the corresponding color being ascertained by mapping color image data signal produced by scanning an object to a defined color space). 6/16/2005 Office Action at 4. The Examiner relied upon Knight as teaching the element missing from Edgar and Ringland. *Id.* Specifically, the Examiner cited Figure 3E (154) and column 10, lines 13-18, of Knight as disclosing this claim element.

The cited portions of Knight describe a purchaser selecting from among available colors for a selected product. This selection is in the context of the purchaser picking a product and a logo to combine into a common image. *See* Knight, 9:30-10:67. Note that selection is made by a purchaser by *clicking* on one of several keys (154a-154e) shown in the web page of Figure 3E of Knight. A user *manually* selecting a color by clicking on an item of a web page, as disclosed by Knight, does *not* teach or suggest sending the identity of the corresponding color, ascertained by mapping a color image data signal produced from a scan to a defined color space. What Knight would have taught or suggested to a person of ordinary skill in the art is that a person can manually perform color selection in an on-line purchase—there is absolutely no suggestion provided by Knight of sending the identity of a color generated based on scanning and mapping as performed in claim 1. Knight thus fails to teach or suggest the feature of claim 1 that is missing from both Edgar and Ringland. The hypothetical combination of Edgar, Ringland, and Knight therefore fails to teach or suggest *all* elements of claim 1.

In response to Appellant's arguments, the Examiner responded in the Advisory Action, dated September 13, 2005, by stating that the Examiner did in fact state that Knight discloses the element in claim 1 of "sending the identity of the corresponding color over the network to a website." 9/13/2005 Advisory Action at 2. The Examiner then re-emphasized that the user is able to select color data on a website by sending color data over a network to the website. *Id.* at 2-3. The Examiner pointed again to element 154 of Fig. 3E of Knight as showing a check box on a website that a user can click on to select different colors over the Internet. *Id.* at 3. The Examiner then cited another passage of Knight that referred to a purchaser choosing among available colors for a selected product by clicking on a selected one of a plurality of keys that correspond to respective colors. *Id.*

All these passages of Knight cited by the Examiner refer to a user clicking on a color of a product the user wishes to buy to select the color for the product. Note that claim 1 recites sending *the* identity of the corresponding color over a network to a website. Claim 1 does not recite sending an identity of the corresponding color over a network to a website. The element “the identity” refers to the identity of the corresponding color that is determined in the determining act of claim 1, where “the corresponding color” refers to the ascertained corresponding color based on mapping the color image data signal to a defined color space, and where the color image data signal is produced based on scanning an object. In other words, “the identity of the corresponding color” recited in claim 1 is *not* any identity of a color – claim 1 is very specific that the identity of the corresponding color is related to a color image data signal produced by scanning an object. Therefore, the citation of Knight as disclosing the sending element of claim 1 is clearly erroneous, as Knight merely teaches that a user can click on a color to select a color for a product. Clearly, the hypothetical combination of Edgar, Ringland, and Knight fails to teach or suggest all elements of claim 1. A *prima facie* case of obviousness is defective for at least this reason.

Also, there existed no motivation to combine the teachings of these three references to achieve the claimed invention. Neither Edgar nor Ringland suggests any desirability for the manual color selection feature taught by Knight. Specifically, Edgar is related to eliminating artifacts associated with image display nonlinearities. Edgar, 1:9-20. There existed absolutely no suggestion of any desirability to incorporate a web page in which a user can select from available colors of a product and logo into the system of Edgar. *See In re Fritch*, 972 F.2d 1260, 1266, 23 U.S.P.Q.2d 1780 (Fed. Cir. 1992) (“The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior

art suggested the *desirability* of the modification.”) (emphasis added). Here, neither Edgar nor Ringland provides any suggestion of applying their techniques in an online manner at a website that could benefit from using the techniques of Knight. Despite the fact that there existed absolutely no suggestion whatsoever by Edgar or Ringland of sending any type of color data over a network to a website, the Examiner nevertheless stated that the “motivation for [modifying the teachings of Edgar and Ringland with the teachings of Knight] would have been to allow for a selection of a desired color from among the available colors.” 6/16/2005 Office Action at 5. This is a classic example of using impermissible hindsight to piece together elements of prior art references where no suggestion existed for the proposed combination. *See In re Fritch*, 972 F.2d at 1266 (“It is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious”); *see also, In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988) (“One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.”).

Knight’s teachings regarding a user manually clicking on a color of a product that the user desires to purchase provides no suggestion of the claimed invention. As explained above, the identity of the corresponding color that is sent to a website, as recited in claim 1, is the identity of the corresponding color related to a color image data signal of a scanned object. Knight provides no suggestion that its color selection technique can be beneficially applied to the scanning context. Thus, there is absolutely no suggestion by any of Edgar, Ringland, or Knight of sending the identity of a corresponding color related to a color image data signal of a scanned object to a website.

Since no motivation or suggestion existed to combine the teachings of Edgar, Ringland, and Knight, the Examiner has clearly failed to establish a *prima facie* case of obviousness with respect to claim 1, for at least this additional reason.

In view of the foregoing, it is respectfully requested that the final rejection of the above claims be reversed.

B. Claims 28 And 29 Were Rejected Under § 103 Over Edgar In View Of Knight.

1. Claims 28 and 29.

Independent claim 28 was rejected as being obvious over the asserted combination of Edgar and Knight. As discussed above with respect to claim 1, Knight does not disclose or suggest communicating an identity of a corresponding color to a website, where the corresponding color is mapped from a color image data representing an object scanned by a scanner. Therefore, since neither Edgar nor Knight discloses or suggests this feature of claim 28, the hypothetical combination of Edgar and Knight does not teach or suggest all elements of claim 28. A *prima facie* case of obviousness has thus not been established with respect to claim 28 for at least this reason.

Moreover, there existed absolutely no suggestion to combine the teachings of Edgar and Knight. Edgar describes a technique for removing artifacts in a displayed image. There is absolutely no suggestion of any desirability to send the identity of a corresponding color related to the color image data signal of a scanned object to a website. Despite this lack of motivation, the Examiner nevertheless cited Knight's teachings regarding user selection of a color as somehow providing a suggestion of the modification of Edgar to achieve the claimed invention. There clearly is no desirability to incorporate the teachings of Knight into Edgar, and even if there were, Knight's teachings regarding user selection of a color has nothing to do with

communicating the identity of a corresponding color related to a color image data of a scanned object to a website.

The *prima facie* case of obviousness is defective for this additional reason.

In view of the foregoing, it is respectfully requested that the final rejection of the above claims be reversed.

C. Claims 14, 19, And 20 Were Rejected Under § 103 Over Edgar In View Of Ringland.

1. Claims 14, 19, and 20.

Independent claim 14 was rejected over the asserted combination of Edgar and Ringland. Claim 14 recites a computer that performs the following tasks: in response to user selection, select a color region on a color image data signal (representative of an object that has been scanned by a scanning apparatus); determine a dominant color from a plurality of colors in the selected color region; map a portion of the color image data signal corresponding to the dominant color to the defined color space to ascertain an identity of the corresponding color; and present the identity of the corresponding color to a user. A *prima facie* case of obviousness has not been established with respect to claim 14 for at least the reason that even if Edgar and Ringland can be combined, the hypothetical combination does not teach or suggest all elements of claim 14.

The Examiner conceded that Edgar fails to disclose the elements recited above. 6/16/2005 Office Action at 7-8. However, the Examiner cited passages in columns 19 and 20 of Ringland as teaching these features. *Id.* at 8. The cited passages of Ringland describe a paint matching window that contains a “Match Paint” button 702 for finding paints 706 that match the colors of any sample that has been marked for later use. The user is shown a color swath for

each matching paint, along with the paint name, the manufacturer's number, and the page number in the manufacturer's book. These cited passages of Ringland refer to matching paints (note plural sense) to plural colors (note plural sense) of a sample. There is no indication or suggestion here, or anywhere else in Ringland, of a computer determining a *dominant* color within a selected color region of a color image data signal that represents an object that has been scanned by a scanning apparatus, and mapping a portion of the color image data signal corresponding to the *dominant* color to the defined color space.

In response to the above arguments, the Examiner pointed to column 19, lines 38-41, and lines 56-61, of Ringland as "clearly" determining a dominant color for the color area under consideration. 9/13/2005 Advisory Action at 4. Lines 38-41 of column 19 of Ringland refers to a "Paint" button 638 that calls up a paint matching window, where a "Match Paint button 702 finds paints 706 that match the colors of any sample that has been marked for later use." Note that the buttons referred to by this passage of Ringland finds paints (note plural sense of "paints") that match the colors (note plural sense of "colors") of a sample. The matching of paints to colors of a sample clearly does not involve determining a *dominant color from a plurality of colors*, as recited in claim 14.

The other passage of Ringland cited by the Advisory Action is at lines 56-61 of column 19, which refers to a "Coord Paint" button 704 to find coordinated paints (note plural sense of "paints") that have hue (color) in common with the matched paints (note plural sense) but have a different level of saturation. Again, there clearly is no determination of a dominant color from a plurality of colors in this passage of Ringland.

As further purported support for the obviousness rejection, the Examiner then stated that the "full language of claim 14 is taught by a *combination* of the references and not by a simple

piecemeal construction of limitations.” It is unclear where in this “combination” of the references a determination of a dominant color from a plurality of colors can be found. Edgar clearly provides absolutely no suggestion of determining a dominant color from plural colors. As established by Appellant, Ringland clearly fails to provide any suggestion of determining a dominant color from plural colors. Therefore, it is clear that the hypothetical combination of Edgar and Ringland does not provide any suggestion of the determination of a dominant color from plural colors, as recited in claim 14. Thus, it is respectfully submitted that a *prima facie* case of obviousness of claim 14 has not been established over Edgar and Ringland.

For the foregoing reasons, it is respectfully requested that the final rejection of the above claims be reversed.

D. Claims 26 And 27 Were Rejected Under § 103 Over Edgar In View Of U.S. Patent No. 5,465,307 (Azumaya) And Knight.

1. Claims 26 and 27.

Claim 26 was rejected over the asserted combination of Edgar, Azumaya, and Knight. Claim 26 recites an article comprising a storage device containing program code that when executed cause a system to receive color image data representing an object scanned by a scanner, where the object has a texture; process the color image data to remove influence of the texture, the processing producing a de-texturized color image data; map the de-texturized color image data to determine a corresponding color in a defined color space; and send an identity of the corresponding color over a network to a website. A *prima facie* case of obviousness has not been established over Edgar, Azumaya, and Knight for at least the following reasons: (1) no motivation or suggestion existed to combine the reference teachings, and (2) the hypothetical combination of Edgar, Azumaya, and Knight fails to teach or suggest all elements of claim 26.

As conceded by the Examiner, Edgar and Azumaya do not disclose sending the identity of the corresponding color over a network to a website, where the corresponding color is based on mapping de-texturized color image data representing an object scanned by a scanner. 6/16/2005 Office Action at 19. The Examiner relied upon Knight as disclosing this feature. *Id.* However, as discussed above with respect to claim 1, Knight does not teach or suggest sending an identity of such a corresponding color to a website. Therefore, the hypothetical combination of Edgar, Azumaya, and Knight does not teach or suggest all elements of claim 26.

Moreover, there existed no motivation or suggestion to combine the teachings of the references to achieve the claimed invention. Edgar is related to eliminating artifacts associated with image display nonlinearities. Edgar, 1:9-20. There existed absolutely no suggestion of any desirability to incorporate a web page in which a user can select from available colors of a product and logo into the system of Edgar. Also, Azumaya teaches image processing performed in a digital copying machine; therefore, Azumaya also does not suggest any desirability to incorporate the web page of Knight into the system of Azumaya.

In view of the foregoing, it is respectfully submitted that a *prima facie* case of obviousness has not been established with respect to claim 26. Therefore, reversal of the final rejection of the above claims is respectfully requested.

E. Claims 6, 7, 9, 12, And 13 Were Rejected Under § 103 Over Edgar In View Of Ringland, Knight, And U.S. Patent No. 5,506,946 (Bar).

1. Claim 9.

Dependent claim 9 (which depends from claim 1) was rejected as being obvious over Edgar, Ringland, Knight, and Bar. In view of the defective obviousness rejection of claim 1 over

Edgar, Ringland, and Knight, it is respectfully submitted that the obviousness rejection of dependent claim 9 over Edgar, Ringland, Knight, and Bar is also defective.

Additionally, as conceded by the Examiner in the rejection of claim 9, Edgar, Ringland, and Knight do not disclose the task of removing influence of texture from a color image data signal. 6/16/2005 Office Action at 11. However, the Examiner cited Bar as disclosing this feature, pointing specifically to column 5, lines 28-38, of Bar. The cited passage of Bar refers to *preserving* shading and *texture* of an image region. Preserving the texture of an image region contradicts the subject matter of claim 25, which recites processing the color image data to *remove influence of the texture*. As taught by Bar, when performing touch-up or painting of images in prior art systems, fill operations are typically performed in which a region of an image is filled with a selected color, which completely overwrites any prior color and consequently removes any shading or texture that appeared in the selected region. Bar, 1:30-48. The textures or shadings are destroyed by these prior art fill operations. Bar, 1:48-49. To overcome this shortcoming of prior art systems, Bar proposed a technique that *preserves* shading and texture in the original scene and allows a user to selectively color edit the image to improve the appearance of the image. Bar, 3:19-21. In other words, rather than teach the processing of a color image data to *remove* influence of the texture, Bar teaches that the texture has to be *preserved*.

The Examiner argued that by performing the color processing based “solely” on the target color, and not the texture of the region, the influence of the texture is negated. 6/16/2005 Office Action at 3. “Thus, the *influence* of the texture is removed by making the texture irrelevant to the color image data processing.” *Id.* These two statements are clearly not supported by Bar. There is no teaching in Bar that color processing is based “solely” on target color and not the texture of the region. In fact, Bar teaches the complete *opposite*, namely that

the image processing is *preserves* the texture of the image region. Therefore, this further argument made in the Examiner does not support the obviousness rejection of claim 9.

In view of the foregoing, reversal of the final rejection of the above claim is respectfully requested.

2. Claims 6, 7, 12, and 13.

Claims 6, 7, and 12, and 13 were also rejected as obvious over Edgar, Ringland, Knight, and Bar. Claims 6, 7, 12, and 13 depend either directly or indirectly from claim 1. In view of the defective obviousness rejection of claim 1 over Edgar, Ringland, and Knight, it is respectfully submitted that the obviousness rejections of claims 6, 7, 12, and 13 over Edgar, Ringland, Knight, and Bar are also defective. Therefore, it is respectfully requested that the final rejection of the above claims be reversed.

F. Claim 18 Was Rejected Under § 103 Over Edgar In View Of Ringland And Bar.

1. Claim 18.

Dependent claim 18 (which depends from claim 14) was rejected as obvious over Edgar, Ringland, and Bar. In view of the defective obviousness rejection of claim 14 over Edgar and Ringland, it is respectfully submitted that the obviousness rejection of claim 18 over Edgar, Ringland, and Bar is also defective.

Therefore, it is respectfully requested that the final rejection of the above claim be reversed.

G. Claims 22 And 23 Were Rejected Under § 103 Over Edgar In View Of Ringland, Knight, Bar, And U.S. Patent No. 5,594,807 (Liu).

1. Claims 22 and 23.

Claims 22 and 23 (which depend indirectly from claim 1) were rejected as obvious over Edgar, Ringland, Knight, Bar, and Liu. In view of the defective obviousness rejection of base claim 1 over Edgar, Ringland, and Knight, it is respectfully submitted that the obviousness rejection of claims 22 and 23 over Edgar, Ringland, Knight, Bar, and Liu is also defective. Therefore, reversal of the final rejection of the above claims is respectfully requested.

H. Claim 24 Was Rejected Under § 103 Over Edgar In View Of Ringland And Liu.

1. Claim 24.

Claim 24 (which depends from claim 14) was rejected as being obvious over Edgar, Ringland, and Liu. In view of the defective obviousness rejection of claim 14 over Edgar and Ringland, it is respectfully submitted that the obviousness rejection of claim 24 over Edgar, Ringland, and Liu is also defective.

Reversal of the final rejection of claim 24 is therefore respectfully requested.

I. Claim 30 Was Rejected Under § 103 Over Edgar In View Of Knight And Ringland.

1. Claim 30.

Claim 30 (which depends from claim 28) was rejected as obvious over Edgar, Knight, and Ringland. In view of the defective obviousness rejection of claim 28 over Edgar and Knight, it is respectfully submitted that the obviousness of claim 30 over Edgar, Knight, and Ringland is also defective. Therefore, reversal of the final rejection of the above claim is respectfully requested.

J. Claims 31 And 32 Were Rejected Under § 103 Over Edgar In View Of Knight, Ringland, And Liu.

1. Claims 31 and 32.

Claims 31 and 32 (which depend from claim 30) were rejected as being obvious over Edgar, Knight, Ringland, and Liu. In view of the defective rejection of claim 30 over Edgar, Knight, and Ringland, it is respectfully submitted that the obviousness rejection of claims 31 and 32 over Edgar, Knight, Ringland, and Liu is also defective. Therefore, reversal of the final rejection of the above claims is respectfully requested.

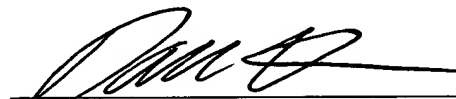
VIII. CONCLUSION

In view of the foregoing, reversal of all final rejections and allowance of all pending claims is respectfully requested.

Respectfully submitted,

Date: _____

Dec. 9, 2005



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APPENDIX OF APPEALED CLAIMS

The claims on appeal are:

1 1. A method for matching a color with a corresponding color in a defined color
2 space, comprising:

3 scanning an object having the color to be matched to produce a color image data
4 signal representative of said object;

5 mapping said color image data signal to the defined color space to ascertain the
6 corresponding color;

7 determining an identity of the corresponding color; and

8 sending the identity of the corresponding color over a network to a website.

1 3. The method of claim 1, wherein the identity of the corresponding color comprises
2 a reference number, and wherein sending the identity of the corresponding color comprises
3 sending the reference number associated with said corresponding color.

1 4. The method of claim 3, further comprising, using said reference number to match
2 a color with the color to be matched.

1 5. The method of claim 3, further comprising, displaying said reference number.

1 6. The method of claim 1, further comprising, selecting a color region on said object,
2 the color region containing said color to be matched.

1 7. The method of claim 1, further comprising, selecting a color region of said color
2 image data signal, the color region containing said color to be matched.

1 8. The method of claim 1, wherein said object comprises a plurality of colors, and
2 further comprising selecting one of said plurality of colors as said color to be matched.

1 9. The method of claim 1, wherein said object has a texture, and further comprising
2 processing said color image data signal to remove the influence of said texture from the color
3 image data signal.

1 10. The method of claim 1, wherein said defined color space comprises the Pantone
2 Matching System.

1 11. The method of claim 1, wherein mapping said color image data signal to the
2 defined color space to ascertain the corresponding color comprises using a color look-up table.

1 12. The method of claim 11, wherein said color image data signal comprises a
2 plurality of pixels, each having a red tristimulus value, a green tristimulus value, and a blue
3 tristimulus value associated therewith, and wherein mapping said color image data signal to the
4 defined color space to ascertain the corresponding color further comprises:

5 computing an average red tristimulus value, an average green tristimulus value,
6 and an average blue tristimulus value from the red, green and blue tristimulus values of
7 one or more of said plurality of pixels; and

8 inputting the average red, green, and blue tristimulus values into said color
9 look-up table to obtain the corresponding color.

1 13. The method of claim 11, wherein said color image data signal comprises a
2 plurality of pixels, each having a red tristimulus value, a green tristimulus value, and a blue
3 tristimulus value associated therewith, and wherein mapping said color image data signal to the
4 defined color space to ascertain the corresponding color further comprises:

5 inputting the red, green and blue tristimulus values of one or more of said
6 plurality of pixels into said color look-up table to obtain one or more reference numbers;
7 and

8 computing an average reference number from said one or more reference
9 numbers, the average reference number identifying said corresponding color.

1 14. A system for matching a color with a corresponding color in a defined color
2 space, comprising:
3 scanning apparatus, said scanning apparatus to scan an object having the color to
4 be matched, said scanner apparatus to produce a color image data signal representative of
5 said object; and
6 a computer operatively associated with said scanner apparatus, said computer to:
7 in response to user selection, select a color region of the color image data
8 signal representative of said object;
9 determine a dominant color from a plurality of colors in the selected color
10 region;
11 map a portion of said color image data signal corresponding to the
12 dominant color to the defined color space to ascertain an identity of the corresponding
13 color; and
14 present the identity of the corresponding color to a user.

1 18. The system of claim 14, wherein said object has a texture, and further comprising,
2 at least one computer readable storage device operatively associated with said
3 computer; and
4 computer readable program code for removing the influence of the texture from
5 said color image data signal, the computer readable program code being stored on said at
6 least one computer readable storage device.

1 19. The system of claim 14, further comprising:
2 at least one computer readable storage device operatively associated with said
3 computer; and
4 a color look-up table stored on the at least one computer readable storage device,
5 said computer using the color look-up table when mapping said portion of the color
6 image data signal to the defined color space to ascertain the identity of the corresponding
7 color.

1 20. The system of claim 14, wherein said defined color space comprises the Pantone
2 Matching System.

1 21. The method of claim 1, wherein sending the identity of the corresponding color to
2 the website comprises sending the identity of the corresponding color to a shopping website for
3 purchasing a product having the corresponding color.

1 22. The method of claim 7, further comprising randomly selecting pixels in the
2 selected color region, wherein mapping said color image data signal to the defined color space
3 comprises mapping a portion of the color image data signal corresponding to the randomly
4 selected pixels to the defined color space.

1 23. The method of claim 7, further comprising determining a dominant color in the
2 selected color region using histograms representing respective colors,
3 wherein mapping said color image data signal to the defined color space
4 comprises mapping a portion of the color image data signal corresponding to the
5 determined dominant color to the defined color space.

1 24. The system of claim 14, wherein the computer determines the dominant color in
2 the selected color region using histograms representing the plurality of colors.

1 26. An article comprising a storage device containing program code that when
2 executed cause a system to:
3 receive color image data representing an object scanned by a scanner, wherein the
4 object has a texture;
5 process the color image data to remove influence of the texture, the processing
6 producing a de-texturized color image data; and
7 map the de-texturized color image data to determine a corresponding color in a
8 defined color space,
9 wherein the program code when executed cause the system to send an identity of
10 the corresponding color over a network to a website.

1 27. The article of claim 26, wherein sending the identity of the corresponding color to
2 the website comprises sending the identity of the corresponding color to a shopping website for
3 purchasing a product having the corresponding color.

1 28. A system comprising:
2 a storage device to store information representing a defined color space; and
3 a processor to:
4 receive color image data representing an object scanned by a scanner;
5 map the color image data to a corresponding color in the defined color
6 space;
7 determine an identity of the corresponding color; and
8 communicate the identity of the corresponding color to a website.

1 29. The system of claim 28, wherein the processor is adapted to send the identity of
2 the corresponding color to a shopping website in response to user selection to enable a purchase
3 of a product containing the corresponding color.

1 30. The system of claim 28, wherein the processor is adapted to, in response to user
2 selection, select a color region of the color image data, and wherein the processor is adapted to
3 map a portion of the color image data corresponding to the selected color region to the defined
4 color space.

1 31. The system of claim 30, wherein the processor is adapted to randomly select
2 pixels in the selected color region, and wherein the processor is adapted to map a portion of the
3 color image data corresponding to the randomly selected pixels to the defined color space.

1 32. The system of claim 30, wherein the processor is adapted to determine a dominant
2 color in the selected color region using histograms representing respective colors, and wherein
3 the processor is adapted to map a portion of the color image data corresponding to the
4 determined dominant color to the defined color space.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.